

July 6, 2018  
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P.O. Box 200701  
Helena, MT 59620-0701

Environmental Quality Council  
Montana Department of Environmental Quality  
Montana Department of Fish, Wildlife and Parks  
Fisheries Division  
Native Species Coordinator, Fisheries  
Region 3 Office  
Montana State Library, Helena  
MT Environmental Information Center  
Montana Audubon Council  
Montana Wildlife Federation  
Ruby Valley Conservation District  
U.S. Army Corps of Engineers, Helena  
U.S. Fish and Wildlife Service, Helena  
State Historic Preservation Office, Helena  
Dr. Robert Thomas Bartoletti

Ladies and Gentlemen:

Enclosed is an Environmental Assessment (EA) prepared for the Future Fisheries Improvement Program (FFIP). The Program tentatively plans to provide partial funding toward a fish barrier on an Ramshorn Creek, a tributary to the Ruby River. Ramshorn Creek is located approximately 6.5 southeast of the community of Sheridan in Madison County.

Please submit any comments by 11:59 PM on August 5, 2018 to Montana Fish, Wildlife & Parks at the address listed above. The funding for this project through the FFIP is contingent upon approval being granted by the Fish & Wildlife Commission. If you have any questions, feel free to contact me at (406) 444-2432. Please note that this draft EA will be considered as final if no substantive comments are received by the deadline listed above.

Sincerely,

A handwritten signature in dark ink, appearing to read "Michelle McGree", followed by a horizontal line.

Michelle McGree, Program Officer  
Habitat Bureau  
Fisheries Division  
e-mail: [mmcgree@mt.gov](mailto:mmcgree@mt.gov)

## ENVIRONMENTAL ASSESSMENT

### Fisheries Division Montana Fish, Wildlife & Parks Ramshorn Creek Fish Barrier

General Purpose: The 1995 Montana Legislature enacted sections 87-1-272 through 273, MCA that direct Montana Fish, Wildlife & Parks (FWP) to administer a Future Fisheries Improvement Program (FFIP). The program involves providing funding for physical projects to restore degraded fish habitat in rivers and lakes for the purpose of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal. Additionally, the 1999 Montana Legislature amended statute sections 87-1-273, 15-38-202 and Section 5, Chapter 463, Laws of 1995 to create a bull trout and cutthroat trout enhancement program. This legislation was amended again in 2013 to open the program to all native fish species (statute section 87-1-283). The program now calls for the enhancement of native fish through habitat restoration, natural reproduction and reductions in species competition by way of the FFIP.

The FFIP tentatively plans to provide partial funding toward the construction of a fish barrier on Ramshorn Creek (Figure 1). Ramshorn Creek (Madison County) is a tributary to the Ruby River and, if completed, would support populations of Westslope Cutthroat Trout (WCT) and Rocky Mountain Sculpin above the barrier and Brook Trout, Brown Trout, and Rainbow Trout below the proposed barrier. As part of the project, a fish passage barrier would be installed in conjunction with an irrigation delivery structure that will ensure delivery of water and reduce maintenance and avoid channel manipulation. This project is in the Ruby watershed and is an essential component in implementing native fish restoration in Ramshorn Creek and its tributaries. The goal is to conserve an important population of WCT in the Ruby watershed.

The upper 0.9 miles of Ramshorn Creek supports one of three remaining genetically unaltered populations of WCT in the Ruby watershed and the only one downstream of Ruby Reservoir. There are only 170 fish in this population, placing them at high risk of genetic and demographic extirpation. The existence of this extant population was first realized in 2016 and its protection and expansion has become among the highest priorities of a local working group of agencies that includes FWP, BLM, USFS, and the Ruby Valley Watershed Council. In 2017 the USFS installed a perched culvert to provide a temporary barrier but a longer term isolating mechanism is needed to secure this population. The BLM contracted preliminary design and cost estimation of a cast-in place concrete barrier but this structure was deemed infeasible because of anticipated cost.

The proposed barrier would provide a cost-effective alternative that will secure the Ramshorn Creek WCT population. This project, in conjunction with removal of nonnative fishes (not in the scope of this EA), would add over 10 miles of habitat and secure this population. The structure will be composed of wood (Figure 2).

I. Location of Project:

This project will be conducted on Ramshorn Creek, a tributary to the Ruby River, located approximately 6.5 miles southeast of Sheridan within Township 4S, Range 4W, Section 8 in Madison County (Figure 1).

II. Need for the Project:

One goal within FWP's six-year operations plan for the fisheries program is to "protect, maintain, and restore native fish populations, their habitats, life cycles, and genetic diversity to ensure stewardship of native species." The upper 0.9 miles of Ramshorn Creek supports one of three remaining genetically unaltered populations of WCT in the Ruby watershed and only one downstream of Ruby Reservoir, and there are only 170 fish in this population. This project would lead to expansion of the habitat for WCT to 10 miles, which is expected to have a significant positive impact on the restoration of native fish populations and their habitats, life cycles, and genetic diversity. Additional habitat increases the population capacity not only for growth, but for survival and reproduction. It also increases the resiliency of critical populations.

Agency Authority for the Proposed Action:

87-1-702. Powers of department relating to fish restoration and management. The department is hereby authorized to perform such acts as may be necessary to the establishment and conduct of fish restoration and management projects as defined and authorized by the act of congress, provided every project initiated under the provisions of the act shall be under the supervision of the department, and no laws or rules or regulations shall be passed, made, or established relating to said fish restoration and management projects except they be in conformity with the laws of the state of Montana or rules promulgated by the department, and the title to all lands acquired or projects created from lands purchased or acquired by deed or gift shall vest in, be, there remain in the state of Montana and shall be operated and maintained by it in accordance with the laws of the state of Montana. The department shall have no power to accept benefits unless the fish restoration and management projects created or established shall wholly and permanently belong to the state of Montana, except as hereinafter provided.

III. Scope of the Project:

The project proposes to install a fish barrier on Ramshorn Creek. The overall goal is to conserve an important population Westslope Cutthroat Trout. This project is expected to cost \$42,500. Of this total, the FFIP would be contributing up to \$10,000 to complete the project.

Contributor	In-kind services	In-kind cash
Ruby Valley Conservation District	\$2,000	
Bureau of Land Management		\$30,500
Total: \$32,500		

IV. Environmental Impact Review Checklist:

**Evaluation of the impacts of the Proposed Action including secondary and cumulative impacts on the Physical and Human Environment**

Project Title: Ramshorn Creek fish barrier

Division/Bureau: Fisheries Division / Fish Management Bureau (FFIP)

Description of Project: The FFIP tentatively plans to provide partial funding toward the construction of a fish barrier on Ramshorn Creek. The overall goal is to secure native Westslope Cutthroat Trout in the headwaters of Ramshorn Creek within the Ruby River watershed and add over 10 miles of important habitat.

**A. POTENTIAL IMPACTS TO THE PHYSICAL ENVIRONMENT**

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Geology and soil quality, stability and moisture			X		X	X
2. Air quality or objectionable odors			X			X
3. Water quality, quantity and distribution (surface or groundwater)			X		X	X
4. Existing water right or reservation				X		X
5. Vegetation cover, quantity and quality			X			X
6. Unique, endangered, or fragile vegetative species				X		
7. Terrestrial or aquatic life and/or habitats			X			X
8. Unique, endangered, or fragile wildlife or fisheries species			X			X
9. Introduction of new species into an area				X		
10. Changes to abundance or movement of species		X				X

## B. POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Noise and/or electrical effects			X			X
2. Land use				X		
3. Risk and/or health hazards				X		
4. Community impact				X		
5. Public services/taxes/utilities				X		
6. Potential revenue and/or project maintenance costs			X			X
7. Aesthetics and recreation			X			X
8. Cultural and historic resources				X		X
9. Evaluation of significance				X		
10. Generate public controversy				X		

## V. Explanation of Impacts to the Physical Environment

### 1. Geology and soil quality, stability and moisture AND 3. Water quality, quantity and distribution (surface or groundwater)

If the proposed action is implemented, construction activities would result in some short term increases in sediment levels; the disturbed area would be confined to the construction area (approximately 100-125 feet of stream). The construction area is accessible by road and most construction activities will be completed within the existing road bed, which should minimize compaction and deposition. The project would be implemented based on conditions stipulated by permitting agencies as well as the use of Construction Best Management Practices (BMPs) designed to reduce erosion and sedimentation and would include but may not be limited to the following measures:

- Work would occur during low flow conditions, which typically occurs late-summer or early-fall.
- Erosion control measures would be installed to control erosion and sediment release into the stream.
- Disturbed areas would be mulched and reseeded with a native plant mixture as soon as possible following construction.

The project will comply with all Montana DEQ short term water quality standards for turbidity related to construction activity.

## 2. Air quality or objectionable odors

Use of heavy equipment could impact air quality and create objectionable odors during construction in the immediate area. These impacts would be limited to period of construction (less than one week).

## 4. Existing water right or reservation

Even though the barrier will change the appearance of the stream, the proposed action will not affect the amount of surface stream flow runoff or water rights.

## 5. Vegetation cover, quantity and quality

During construction there will be localized impacts to vegetation during installation of the barrier. Impacts to vegetation would be limited to staging areas and ground immediately adjacent to the construction site, which is a road bed. Following construction, all disturbed areas will be mulched and reseeded with a native plant mix. Woody riparian species may also be planted to help stabilize banks.

## 7. Terrestrial or aquatic life and/or habitats

Installation of a fish barrier will continue to divide the stream into a native fish reach and an area of mixed native/non-native assemblage. The barrier will retain current connectivity in Ramshorn Creek but long-term it will contribute to much-needed quality habitat for WCT which is expected to have an overall positive impact on the conservation of native species. The overall impact is expected to be positive.

## 8. Unique, endangered, or fragile wildlife or fisheries species

The long-term goal in this watershed is to retain a migration barrier that prevents the movement of non-native trout upstream to protect the genetically pure WCT population above the barrier. The action will have a positive impact on WCT conservation and reduces one potential extirpation risk to WCT in the Ruby watershed. Westslope Cutthroat Trout are a Montana Species of Concern.

## 10. Changes to abundance or movement of species

Unobstructed movement of aquatic species is affected by the barrier; however, a culvert is currently in place that has been acting as a barrier on Ramshorn Creek. The long-term result of the project is ten miles of habitat for genetically pure WCT upstream of the barrier and the non-native/native fish assemblage would be retained downstream. The project should be a first step to positive changes to abundance of genetically pure WCT.

## VI. Explanation of Impacts to the Human Environment

### 1. Noise and/or electrical effects

Construction is expected to take one week or less. During construction, noise levels in the immediate area would be elevated, which could stress resident wildlife populations. Construction activities would occur during base flow conditions (late summer) after most breeding and nesting seasons and prior to hunting seasons.

### 6. Potential revenue and/or project maintenance costs

Barrier construction is expected to have a minor maintenance cost over time. Ruby Valley Conservation District will be responsible, with assistance from project partners.

### 7. Aesthetics and recreation

Disturbance of the ground and vegetation during and immediately following construction may be aesthetically displeasing. Any areas disturbed during construction activities will be recontoured and revegetated as soon as possible following construction. The barrier itself will be permanent, but is located on private land and it is small and composed of wood, so it is expected to have minor aesthetic impact.

### 8. Cultural and historic resources

No impacts are expected, but the project will be reviewed by the State Historical Preservation Office and any concerns will be addressed.

## VII. Narrative Evaluation and Comment.

There are no anticipated cumulative effects.

## VIII. Discussion and Evaluation of Reasonable Alternatives.

### 1. No Action Alternative.

If no funding is provided through the FFIP, either the applicant would have to seek additional sources of funding to complete the project, or the affected area of Ramshorn Creek would not achieve long term conservation of an important population of WCT.

The no action alternative would be to not install the barrier. The current culvert barrier is not a long-term solution for WCT protection and ultimately non-native species could move upstream. Eventually the few existing populations of WCT would be all that remains of WCT protection in

the Ruby watershed.

2. The Proposed Alternative.

The proposed alternative intends to provide partial funding through the FFIP to install a fish barrier on Ramshorn Creek and establish 10 miles of habitat for WCT conservation.

IX. Environmental Assessment Conclusion Section.

1. Other groups or agencies contacted or which may have overlapping jurisdiction:

Army Corps of Engineers  
Ruby Valley Conservation District  
Department of Environmental Quality

2. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

None.

3. Is an EIS required?

No. We conclude, from this review, that the proposed activities will have an overall positive impact on the physical and human environment, and will therefore not require the extensive analysis associated with an EIS.

4. Level of public involvement.

The project application to the FFIP has been posted on the FWP webpage for public comment. No comments have been received to date. The proposed project was reviewed and supported by the public review panel of the FFIP. The proposed project also will be reviewed by the Fish & Wildlife Commission, and funding will be contingent upon their approval. The EA will be distributed to all individuals and groups listed on the cover letter and the EA will be published on the FWP webpage: [www.fwp.mt.gov](http://www.fwp.mt.gov) under Public Notices.

5. Duration of comment period?

Public comment will be accepted through 11:59 PM, August 6, 2018.

6. Person(s) responsible for preparing the EA.

Michelle McGree, Program Officer  
Montana Fish, Wildlife & Parks



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FIGURE 1: project location



FIGURE 2: fish barrier design example